

**REMARKS**

Claims 1-6, 12-14, 22, 23 and 26-30 are pending in this application. By this Amendment, claims 3, 5, 23 and 28 have been amended for clarity, and new claims 29 and 30 have been added. New claims 29 and 30 are supported in the application at page 11, line 27 through page 12, line 3; and page 16, line 22 through page 17, line 14. No new matter is added.

In view of at least the following remarks, reconsideration and allowance are respectfully requested.

The courtesies extended to Applicants' representative by Examiner Patterson at the interview held May 30 are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicants' record of the interview.

Applicants reiterate the request in our December 19 Amendment that this application be considered "special," and that the Supervisory Patent Examiner review the prosecution of this application, because this application has been pending for more than 5 years and has received more than 3 Office Actions. See, MPEP §707.02.

Additionally, it is noted that the April 9, 2007 Office Action does not address the status of claims 26-28 which were added by Applicants' December 19, 2006 submission.

**I. Rejections Under 35 U.S.C. §103(a)**

The Office Action rejects claims 1, 2, and 22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,193,711 to Hirata et al. ("Hirata") in view of U.S. Patent No. 5,954,223 to Moore ("Moore"); and rejects claims 3-6, 12-14, and 23 under 35 U.S.C. §103(a) as being unpatentable over Hirata in view of Moore and Japanese Patent No. 6246777 to Suzuki et al. (Suzuki) and Japanese Patent No. 03286815 to Asahi Chemical (Asahi Chemical). These rejections are respectfully traversed.

The applied references fail to support a *prima facie* case of obviousness because the references do not suggest a cylindrical molded body with a sidewall portion having a "mark produced by injection of body forming material from an injection gate opening positioned on said inner surface," as recited in claim 1. Claim 1 further recites that the mark is positioned, as a result of the injection, at the inner surface of the cylindrical molded body between upper and lower edges of the insert so as to be at a position corresponding to a position on the inner surface that is covered by the insert.

The Office Action asserts that Hirata discloses an injection mark on the inner surface of the sidewall because it describes thickened portions in the sidewall of a molded container. See, Office Action at pages 2-3. As stated therein, the thickened portions are illustrated in Hirata in Fig. 13 at item 21. The Office Action further states that "because the thickened area is injected, the thickened area is formed by an injection gate opening, and is therefore a mark of an injection gate opening and is formed by injection." However, as discussed in the interview, the "thickened" portions of Hirata are not injection marks from the injection gate opening, within the meaning of the pending claims, because the specification clearly indicates that the injection gate opening "mark" refers to marks made where the body forming material passes through the injection gate opening. The claim terms must be interpreted in light of the disclosure in the specification. As stated in the specification, when the molded article is removed from the mold, the cured material inside the injection gate is cut off from the inner surface of the sidewall. The slight mark of the gate opening remains on the molded body, but is present on the inner surface of the sidewall so it is not readily visible from the outside. See, application as originally filed at page 16, lines 22 through page 17, line 14; page 11, line 27 through page 12 line 3. The resulting marks are illustrated in one embodiment of the invention at Fig. 7, items 10b.

Hirata itself notes that the thickened portion in the sidewalls are caused by cut-outs in the mold core, *e.g.*, items 20 in Fig. 12. See, also Hirata at col. 7, lines 15-20. In this regard, Figs. 10(A) and 10(B) of Hirata show that the molds have an injection gate opening which is in direct communication with the bottom of the molded body. This is also shown in Fig. 2(A), where the molten resin path along the insert is outlined. Accordingly, the mark from the injection gate in Hirata would be located, if anywhere, on the bottom wall of the molded container. The thickened wall portion described in *Hirata et al.* does not result from the injection gate opening, and does not suggest the sidewall "mark" recited in claim 1 under any reasonable interpretation.

In any event, the Hirata also fails to disclose or suggest any alleged "mark" that is located on the inner surface of the sidewall, as recited in claim 1. The thickened sidewall portion referred to in the Office Action (Fig. 13 of Hirata) is illustrated only from an outer perspective of the molded container that shows only the outer surface of the relevant portion; there is no disclosure in Hirata indicating that the thickened portion would be visible as any kind of "mark" from the inside. Independent claims 3 and 28 recite features similar to those referred to in claim 1. Thus, for at least these reasons, claims 1, 3 and 28 are patentable over the applied references.

Claims 2, 4-6, 12-14, 22, 23, 26 and 27 depend from one of independent claims 1 and 3 and therefore are allowable for the reasons enumerated above, as well as for the additional features they recite.

Independent claim 3 is also distinguishable over Hirata because it recites a method of making an insertion molded cylindrical article having a sidewall portion and an insert by using an injection mold, where the method includes the steps of, *inter alia*, injecting a molten resin through an injection gate opening, such that the molten resin passes through the injection gate opening in a direction toward the molded inner surface of the sidewall portion

at a position between the upper and lower edges of the insert. This feature of claim 3 can be illustrated with reference to Fig. 2 of the application whereby the molten resin is injected into molding cavity 17 through gate openings 19a toward the inner surface of the sidewall portion of the molded body. As discussed in the interview, Hirata does not teach or suggest injecting molten resin, such that it passes through the gate opening in a direction that is toward the sidewall, and appears to describe a technique where molten resin is injected through gate openings toward the bottom of the molded body. This can be seen in Figs. 10(A) and 10(B) of Hirata, where the injection gate in the mold core is positioned to be perpendicular with the bottom panel of the container, and accordingly is not positioned so that the molten resin would inject through the gate opening toward the sidewall. Independent claim 28 recites features similar to those in claim 3. Thus, for at least this reason claims 3 and 28 are patentable over the applied references.

For at least the foregoing reasons, reconsideration and withdrawal of the rejections of claims 1-6, 12-14, 22, 23 and 26-28 are respectfully requested.

## **II. New Claims**

New claim 29 depends from claim 5, and is directed to a method for making an insertion-molded cylindrical body having a sidewall portion with an inner surface and an injection mark left by the injection gate. As recited in claim 29, the injection mark on the sidewall of the molded body is formed during the step of cutting the connection between the cured resin inside the injection gate hole and the and the cylindrical molded body. As discussed in the interview, this feature is likewise not disclosed or suggested by the "thicker areas" in Hirata which were noted in the Office Action, because the thick portions in Hirata are not formed when the connection is cut between the cured resin in the injection gate hole and the sidewall of the molded body.

New claim 30 is directed to an insertion molded article having a cylindrical molded body with a sidewall portion and a mark left by an injection gate opening, and an insert. Claim 30 further recites that the article is made from an injection molding method which includes the steps of injecting molten resin through an injection gate into a mold, curing and forming the molded body, and releasing the molded body from the mold by, *inter alia*, cutting a connection between the cured resin in the injection gate hole, thereby leaving the injection mark on the inner surface of the sidewall. Here again, this feature is not suggested by Hirata or the other references of record.

### III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-6, 12-14, 22, 23 and 26-30 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Date: June 11, 2007

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